

Remarks

Claims 1-7 are pending in this application. Claims 8-13 are withdrawn. Claims 1 and 2 are amended.

Claim 1 is amended to recite "A vehicle identifying marker composed of oligonucleotide to which phase transfer agent comprising quaternary ammonium compound or cationic surfactant is bound." Support for the amendment of claim 1 can be found throughout the specification as originally filed.

Claim 2 is amended to recite "The vehicle identifying marker according to claim 1, characterized in that said marker further comprises materials selected from the group consisting of vehicle painting dye, vehicle coating solution, lacquer and coating paint." Support for the amendment of claim 2 can be found throughout the specification as originally filed.

The amendments to the claims are made solely for advancing prosecution. Applicants, by amending or cancelling any claims herein, make no admission as to the validity of any objection and/or rejection made by the Examiner. Applicants reserve the right to reassert the original claim scope of any claim amended herein, in a continuing application.

No new matter is introduced to this application within the meaning of 35 USC §132.

In view of the following, further and favorable consideration is respectfully requested.

I. Sequence Rules

The Examiner indicated the amendments to the specification submitted in the Response filed July 24, 2008 was non-compliant because the amendments did not correctly address the location within the originally filed specification. Additionally, the Examiner indicated the computer readable format (CRF) of the sequence listing is defective and requires a new CRF.

As shown in the amendments above, Applicants amended the originally filed specification to insert the proper sequence identifiers. Furthermore, Applicants submit herewith a sequence listing and a computer readable format thereof, as well as a Sequence Listing Submission Statement.

Therefore, Applicants submit that the present application complies with the relevant sections of 37 C.F.R. §§1.821-1.825. Accordingly, Applicants request that this objection be withdrawn.

II. Rejection Under 35 U.S.C. § 112, Second Paragraph

The Examiner rejected claim 2 as failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Specifically, the Examiner alleged that “characterized in that said marker is added to materials selected from the group consisting of...paint” is vague and indefinite, since it is unclear whether claim 2 is drawn to a process or a product.

Applicants traverse this rejection and submit this amendment clarifies that claim 2 particularly points out and distinctly claims a product.

Applicants respectfully submit that claim 2 has been amended to read: "The vehicle identifying marker according to claim 1, characterized in that said marker **further comprises** materials selected from the group consisting of vehicle painting dye, vehicle coating solution, lacquer and coating paint."

As such, Applicants submit that claim 2 particularly points out and distinctly claims a product thereby removing the basis for this rejection. Therefore, the Examiner is respectfully requested to withdraw this rejection.

IV. Rejection Under 35 U.S.C. § 102(b)

The Examiner rejected claims 1-7 as being anticipated by U.S. Patent No. 5,451,505 to Dollinger et al. ("Dollinger"). The Examiner alleged Dollinger teaches a taggant which comprises a nucleic acid that has a specific nucleotide sequence that provides a means to store information, which can be added to substances including automobiles and automobile parts. The Examiner asserted Dollinger teaches the taggants may be covalently bonded to solid supports such as latex beads, dextran or magnetic beads or encapsulated by polymeric substances or lipophilic compositions.

Applicants respectfully traverse this rejection. The test for anticipation is whether each and every element as set forth is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Bros. v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987); MPEP §2131. The identical invention must be shown in as complete detail as is contained in the claim. *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989); MPEP §2131. The elements must also be arranged as

required by the claim. *In re Bond*, 15 USPQ2d 1566 (Fed. Cir. 1990).

Applicants respectfully submit the instant claims are distinguishable from the teachings of Dollinger. Specifically, the taggant covalently bound to a solid support as taught by Dollinger may cause modification of oligonucleotide bases during extraction and recovery of oligonucleotides. This in turn harms amplification with the exact sequence. See, paragraph [0009] in application in U.S. Publication Patent Application No. 20050250101 A1. Further, the Dollinger reference does not teach the phase transfer agent to be a quaternary ammonium compound or cationic surfactant.

In contrast, the presently pending claims recite that the phase transfer agent comprises quaternary ammonium compound or cationic surfactant. The quaternary ammonium compounds and cationic surfactants provide two advantages. First, the specific phase transfer agents can neutralize the negative charge of oligonucleotides in non-polar solvents such as organic solvent (See the present specification at page 7, lines 6-11). Second, the specific phase transfer agents are not required to break covalent bonds at the steps of extraction and recovery of oligonucleotides and do not modify bases. As a result, oligonucleotides can be amplified with the exact sequence (See the present specification at page 2, lines 25-28).

Furthermore, the taggant encapsulated by polymeric proteins, such as proteins, or lipophilic compositions, such as liposomes, are totally different from the structure of oligonucleotide-PTA (phase transfer agent) of the presently claimed subject matter. In the case of liposomes, it is clear that the organic solvents of the instant subject matter could not be utilized due to the electrical repulsion between the hydrophobic portion of the

liposome and the nonpolar solvent.

For at least the foregoing reasons, The teachings of Dollinger do not anticipate presently pending claims 1-7 within the meaning of 35 USC § 102(b). Accordingly, Applicants respectfully request the Examiner to reconsider and withdraw this rejection.

V. Rejection Under 35 U.S.C. § 102(b) Based on International Publication No. WO 87/06383

The Examiner rejected claims 1 and 5-6 as being anticipated by International Publication No. WO 87/06383 to Le Page et al. ("Le Page"). The Examiner alleged Le Page teaches an article labeled with a tag to which a signal compound is attached. The signal compound may further be attached to an adhesive or paper. The Examiner further asserted Le Page teaches the tag and signal compounds are nucleic acids and the substance comprising the tag and signal can be used on any substance including car parts.

Applicants traverse this rejection. The test for anticipation is outlined above in section IV and incorporated herein in its entirety. Briefly, the test for anticipation is whether each and every element as set forth is found, either expressly or inherently described, in a single prior art reference. Applicants respectfully submit the instant claims are distinguishable from the teachings of Le Page and that the reference does not teach each and every element of the instant claims. Specifically, the paper or adhesive of Le Page are different from the phase transfer agent according to the instant claims.

In contrast, the presently pending claims recite that the phase transfer agent comprises quaternary ammonium compound or cationic surfactant. The quaternary ammonium compounds and cationic surfactants provide two advantages. First, the specific

phase transfer agents can neutralize the negative charge of oligonucleotides in non-polar solvents such as organic solvent (See the present specification at page 7, lines 6-11). Second, the specific phase transfer agents are not required to break covalent bonds at the steps of extraction and recovery of oligonucleotides and do not modify bases. As a result, oligonucleotides can be amplified with the exact sequence (See the present specification at page 2, lines 25-28).

As such, Applicants respectfully submit the instant claims are distinguishable from the teachings of Le Page, since Le Page does not teach each and every element of the instant claims. Therefore, the Examiner is respectfully requested to withdraw this rejection.

VI. Rejection Under 35 U.S.C. § 103(a) Based on U.S. Patent No. 5,451,505

The Examiner rejected claim 2 as being unpatentable over Dollinger. The Examiner alleged Dollinger teaches a taggant which comprises a nucleic acid that has a specific nucleotide sequence that provides a means to store information, which can be added to substances including automobiles and automobile parts. The Examiner asserted Dollinger teaches the taggants may be covalently bonded to solid supports such as latex beads, dextran or magnetic beads or encapsulated by polymeric substances or lipophilic compositions. The Examiner further alleged one of skill in the art would be motivated to arrive at the instantly claimed subject matter since Dollinger teaches taggants in automobile parts and paint products. The Examiner stated in such case there would be a reasonable expectation of success.

Applicants respectfully traverse this rejection. To establish a *prima facie* case of

obviousness, the PTO must satisfy three requirements. First, as the U.S. Supreme Court recently held in *KSR International Co. v. Teleflex Inc.*, 550 U.S. 398 (2007), “a court must ask whether the improvement is more than the predictable use of prior art elements according to their established functions. ... it can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does... because inventions in most, if not all, instances rely upon building blocks long since uncovered, and claimed discoveries almost of necessity will be combinations of what, in some sense, is already known.” Second, the proposed modification of the prior art must have had a reasonable expectation of success, determined from the vantage point of the skilled artisan at the time the invention was made. *Amgen Inc. v. Chugai Pharm. Co.*, 18 USPQ 1016, 1023 (C.C.P.A. 1970). Lastly, the prior art references must teach or suggest all the limitations of the claims. *In re Wilson*, 165 USPQ 494, 496 (C.C.P.A. 1970).

In this respect, a proper case of *prima facie* obviousness has not been established against the present claims, because Dollinger fails to teach or suggest all the elements/limitations of the present claims, as required by *In re Wilson*.

Applicants respectfully submit the instant claims are patentably distinct from the teachings of Dollinger, and the Examiner has failed to make a proper *prima facie* case of obviousness.

Specifically, as discussed above, the taggant covalently bound to a solid support as taught by Dollinger may cause modification of oligonucleotide bases during extraction and recovery of oligonucleotides. This in turn harms amplification with the exact sequence.

See, paragraph [0009] in application in U.S. Publication Patent Application No. 20050250101 A1.

In contrast, the presently pending claims recite that the phase transfer agent comprises quaternary ammonium compound or cationic surfactant. Dollinger does not teach or suggest that the phase transfer agent is a quaternary ammonium compound or a cationic surfactant.

The quaternary ammonium compounds and cationic surfactants provide two advantages. First, the specific phase transfer agents can neutralize the negative charge of oligonucleotides in non-polar solvents such as organic solvent (See the present specification at page 7, lines 6-11). Second, the specific phase transfer agents are not required to break covalent bonds at the steps of extraction and recovery of oligonucleotides and they do not modify bases. As a result, oligonucleotides can be amplified with the exact sequence (See the present specification at page 2, lines 25-28). A

Again, dollinger does not teach the phase transfer agent to be a quaternary ammonium compound or a cationic surfactant and therefore, Dollinger fails to teach or suggest all the elements/limitations of the present claims, as required by *In re Wilson*.

Therefore, nothing in Dollinger renders the present claims obvious under the meaning of 35 USC § 103(a). Accordingly, Applicants respectfully request the Examiner to reconsider and withdraw this rejection.

VII. Rejection Under 35 U.S.C. § 103(a) Based on International Publication No. WO 87/06383

The Examiner rejected claim 2 as being obvious over Le Page. The Examiner alleged Le Page teaches an article labeled with a tag to which a signal compound is attached. The signal compound may further be attached to an adhesive or paper. The Examiner further asserted Le Page teaches the tag and signal compounds are nucleic acids and the substance comprising the tag and signal can be used on any substance including car parts. The Examiner further alleged it would have been *prima facie* obvious for the ordinary artisan to include vehicle painting dye and vehicle coating dye in the composition taught by Le Page since Le Page teaches that signal compounds can be added to any substance, including art work and car parts. Likewise, the Examiner stated that the ordinary artisan would have been motivated to be included in vehicle painting dye and vehicle coating dye since Le Page teaches signal compounds can be added to any substances and this would result in a reasonable expectation of success.

Applicants traverse this rejection. The test for obviousness is outlined above in section VI and incorporated herein in its entirety. Applicants respectfully submit the instant claims are patentably distinguishable from the teachings of Le Page, and the Examiner has failed to make a proper *prima facie* case of obviousness.

Specifically, as discussed above, the paper or adhesive of Le Page are different from the phase transfer agent according to the instant claims. In contrast, the presently pending claims recite the phase transfer agent comprises quaternary ammonium compound or cationic surfactant. Le Page does not teach or suggest the phase transfer

agent is a quaternary ammonium compound or a cationic surfactant. The quaternary ammonium compounds and cationic surfactants of the presently pending claims provide two advantages. First, the specific phase transfer agents can neutralize the negative charge of oligonucleotides in non-polar solvents such as organic solvent (See the present specification at page 7, lines 6-11). Second, the specific phase transfer agents are not required to break covalent bonds at the steps of extraction and recovery of oligonucleotides and they do not modify bases. As a result, oligonucleotides can be amplified with the exact sequence (See the present specification at page 2, lines 25-28). Again, Le Page does not teach the phase transfer agent to be a quaternary ammonium compound or a cationic surfactant. Therefore, Le Page fails to teach or suggest all the elements/limitations of the present claims, as required by *In re Wilson*.

The Examiner refers to a reference published twenty-one years ago and vaguely states that the artisan of ordinary skill would somehow be motivated by its teachings and would have a reasonable expectation of success in light thereof to arrive at the instant subject matter through minor modification. However, Applicants submit that one of ordinary skill would not think that paper or adhesive is similar to the phase transfer agent (quaternary ammonium compounds and cationic surfactants) of the instant subject matter, which neutralizes negative charges of oligonucleotides.

The Examiner has failed to state why one of skill in the art would find such a shortcoming of the reference acceptable and why one of skill in the art would have a reasonable expectation of success at arriving at the instantly claimed subject matter given the teachings of Le Page.

Therefore, nothing in the teachings of Le Page renders the present claims obvious under the meaning of 35 USC § 103(a). Accordingly, Applicants respectfully request the Examiner to reconsider and withdraw this rejection.

Conclusion

In view of the foregoing, Applicants submit the application is in condition for immediate allowance. Early notice to that effect is earnestly solicited. The Examiner is invited to contact the undersigned attorney if it is believed that such contact will expedite the prosecution of the application.

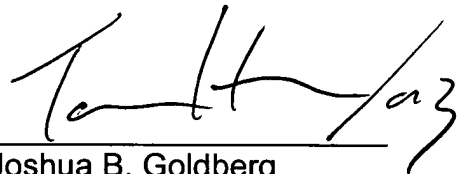
In the event this paper is not timely filed, Applicants petition for an appropriate extension of time. Please charge any fee deficiency or credit any overpayment to Deposit Account No. 14-0112.

Respectfully submitted,

THE NATH LAW GROUP

Date: April 5, 2010

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A handwritten signature in black ink, appearing to read 'Joshua B. Goldberg', with a stylized flourish at the end.

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